

# RECIRCULATE Project

## January Newsletter

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### Message from our Project Director

**Prof. Kirk T. Semple**

Welcome to the first edition of our monthly RECIRCULATE newsletter. Our research and engagement activities have continued to grow throughout 2020, despite the challenges of the COVID-19 pandemic, and we've got a lot to tell you about. Throughout 2021 we plan to give you some insights into the great work being carried out by our research teams in Ghana, Nigeria and the UK, as well as news from the wider RECIRCULATE community as it continues to grow. We're also hoping to highlight upcoming opportunities and initiatives and always welcome your thoughts and ideas on what to include.

This month we're showcasing two films produced by the team. The first is a [documentary](#), by the RECIRCULATE teams at [CSIR Ghana](#), highlighting the work being carried out with communities addressing, UN Sustainable Development Goals for "Clean Water & Sanitation" (SDG6), "Zero Hunger" (SDG2) and "Affordable and Clean Energy" (SDG7). The second is in collaboration with the [Centre for Global Eco-Innovation](#) (CGE) and highlights our partnership approach to building [Better Futures](#).

So, please, enjoy reading the newsletter and if you have any feedback, contact our Project Officer [Dian Velkov](#).

Wishing you a healthy and successful 2021.



CSIR RECIRCULATE documentary



CGE Better Futures

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## Research highlights



### Entrepreneurship for development

The Global Entrepreneurship Monitor shows that presently, Africa is the only continent whereby more women than men choose to become entrepreneurs. There is a general perception that female entrepreneurship in Africa is mainly driven by the need to survive. Yet a spotlight interview with Natasha Omokhodion-Banda reveals how we might need to start shifting our understanding from 'entrepreneurship for survival' to 'entrepreneurship for development.' As the founder of Copper Monstera and a member of the Women Innovators Network for Africa (WINA), Natasha tells how she aims to develop her creative skills in filmmaking and storytelling to reduce youth unemployment in Africa.

[See the full interview](#)

## Training the next generation

In Accra, RECIRCULATE researchers at CSIR are engaging resident adolescents to act as change agents for water and sanitation safety plan communication. The youngsters have been trained to understand the water supply chain, with emphasis on visualisation of how the localized faecal contamination transmits to the water they drink and consume in other ways and how to effectively communicate what they have learned to enable individual and community-based behavioural and social change. This model was successfully implemented in the earlier, British Academy funded project [The Last 100 Metres](#) in [Bangladesh](#) and Tanzania.

[Read more](#)

## Growing Ghanaian rice in Lancaster

At Lancaster University one of the greenhouses has recently been converted into a state-of-the-art rice paddy. The RECIRCULATE team are taking a technological approach to a century's old practice which will allow the development of new ways of growing rice, that will hopefully improve production and therefore food security. A total of 8 tanks using around 6 tons of soil and 3500 litres of water have been installed. Combined with powerful lights, automatic valves and selection of scientific instruments every aspect of the environment can be controlled and every aspect of the plants' growth measured. Such a facility will prove invaluable for future research in RECIRCULATE, to investigate how best to utilize water resources for food production.

[Read more](#)

## Turning up the gas

The development of portable biogas digesters for household use is the focus of research teams at the University of Benin and Lancaster University. The teams have designed prototypes based on converted gas cylinders and are investigating gas production using food and other waste streams. Improving the

performance and sustainability of household anaerobic digestion (AD) systems will help families and communities to move away from charcoal, wood and kerosene for cooking. In turn, this should reduce air pollution, dependence on fossil fuels and the release of GHGs into the atmosphere.

[Read more](#)

## Capacity Building highlights



### Using drones to map study sites

3 RECIRCULATE CSIR researchers completed a two-day interactive online course delivered by UK-CEH. The participants gained knowledge on the manipulation and fusion of spatial data obtained from the project's unmanned aerial vehicle (UAV), process the images into a scene suitable for image processing, and generate classified images. The research will benefit from high quality and accurate maps of the two study sites in informal settlements in Accra, Ghana. For further information, please contact [Richard Bayitse](#).

### Working with farmers

RECIRCULATE researcher teams at [Council for Scientific and Industrial Research](#) (CSIR), the [Crops Research Institute](#) (CRI) are encouraging adoption of the project's research outputs by developing the technologies in the farmer's field with close and continuous consultation. Demonstration plots are used to create awareness among farmers about modern technologies but also motivate them to apply these in their farming practices. In addition, the demonstration plots also served as training facilities.

[Read more](#)

### Stimulating entrepreneurial thinking

RECIRCULATE researchers at Lancaster University Ghana and Lancaster University have developed a

programme for researchers aimed at fostering an entrepreneurial approach to their research. The Stimulating Entrepreneurial Thinking in Scientists (SETS) workshop was piloted in CSIR-Ghana with scientists, researchers and academia to foster innovative ways to impact positively on individuals and society. The team are now working on an online version of the curriculum and resources, for further information about the programme, please contact [Anthony N-Yelkabong](#).

## eLearning for Research Administrators

Following a successful programme of face-to-face training for research administrators the RECIRCULATE team together with Lancaster University's Research Support Service is developing an easily accessible, online training programme to enhance the knowledge and skills of research administrators. Flexible study options will allow participants in the **Global Research Support Network** to complete the online "asynchronous" training programme "anytime, anyplace" using a device to suit them. To be informed of the launch of the programme, please contact our Project Manager [Paul McKenna](#).

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## Events and Engagement



Due to COVID-19 restrictions, the **RECIRCULATE 2020 Annual Meeting** (originally scheduled to be hosted by the University of Benin, Nigeria), was conducted as a series of online events. From 22 to 28 September, over 60 delegates participated in interactive sessions, beginning with questions and answers on each of the recorded updates, followed by workshops on training requirements, communication coordination, impact and legacy planning.

[Read more](#)

The 3rd edition of the **Knowledge Exchange & Engagement Workshop** was held over 4 days in Gaborone where delegates from 8 African countries

took part. A team of experienced knowledge exchange professionals from Lancaster University's Faculty of Science & Technology and Management School travelled to Botswana to deliver an interactive programme of activities facilitated by Dr Dee Hennessy of Creative Exchange and Dr Akan Odon of Envirofly.

[Read more](#)

The 3rd edition of **Entrepreneurship & Innovation Workshop** in Nairobi hosted over 60 delegates from 10 African countries. Over four days the delegates worked together to address the key challenges faced by entrepreneurs in Africa in the context of the circular water economy and [UN Sustainable Development Goals](#), leading to applications to carry out further bespoke capacity building activities in Lancaster or Africa later in 2020.

[Read more](#)

## ACTUATE quickly progressing

ACTUATE's is building anaerobic digester (AD) systems to demonstrate the benefits for of using biogas for fuel. In Madina Zongo, Accra, Ghana, CSIR – Institute of Industrial Research (IRR) have installed the digester and it is ready to be fed with organic waste. In addition, GreenAd, HATOF Foundation and Umar Bun Hatab Islamic School are working with the Madina Zongo community to generate interest and support for the digester as a source of biogas for fuel. The University of Benin, Nigeria has received the components for their digester and will be working on the installation in the coming weeks. They have also been engaging the university schools, community and policymakers to create investment in the project and AD.

[Read more](#)

## PARTICIPATE with us

[PARTICIPATE](#) is our monthly programme of engagement activities which promotes discussion and collaboration across the network across Africa, the UK and beyond. The programme activities include

webinars, interviews, social media live sessions and Instagram "post a picture". The themes on which we focused in 2020 were - [Bioenergy](#), [Enterprise](#), [Sustainable Agriculture](#), [Health & Sanitation](#) and [Women in Research](#).

## Policy Month January - upcoming events

- Monday 25th 11:00am - 1:00pm - International Policy Webinar hosted on Zoom, register your interest [HERE](#)
- Friday 29th 4:00pm - A [Facebook](#) live session on "Understanding the African Union Policy Agenda for Sustainability"

## To interact with us:

Twitter: [RECIRCULATORS, ACTUATE](#)

Instagram: [RECIRCULATORS](#)

Facebook: [RECIRCULATE GCRF](#)

LinkedIn: [Group RECIRCULATORS](#)



## The last drop...

The [RECIRCULATE Annual meeting](#) is usually the only chance for the whole team to come together in one place, in 2018 that was Accra, in 2019 it was Lancaster and 2020 was scheduled to be in Benin City. Unfortunately, that couldn't happen as planned but in moving our meeting online we saved over 50 tonnes of CO<sub>2</sub>e emission, which is equivalent to charging over 6 million smartphones!



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We send information about funding opportunities, news, and events to our contacts to foster collaboration. We hope this has been of interest to you, if so please add us to your contact list. However, if you do not want to receive our monthly RECIRCULATE Newsletter, just click "unsubscribe" below and we will remove you from our newsletter subscription list, or if there is someone else within your organisation you can recommend that we liaise with, just let us know and we will update our database, thank you.

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